

ABSTRACT

A freestanding micrometer and method for determining the diameter of a cylindrical body, including measuring variations in diameter along a longitudinal length thereof, such as a roll used in the production of metal and paper sheet products. The micrometer comprises a housing supported on a circumferential surface of the cylindrical body. A first sensing element is movably supported by the housing and adapted for sensing a first surface point of the cylindrical body laterally spaced apart from the housing and disposed in a cross-sectional plane of the cylindrical body. A second sensing element is mounted to the housing for contact with a second surface point of the cylindrical body disposed in the cross-sectional plane of the cylindrical body. The first and second surface points locate, respectively, a terminal and midpoint of a chord lying in the cross-section plane of the cylindrical body, from which the diameter of the cylindrical body is determined.